

Division of Solid and Hazardous Waste
CN 414
Trenton, New Jersey 08625
Tel. # (609) 984-6900
Fax. # (609) 777-0769

SOLID WASTE FACILITY PERMIT

for
Cape May County Municipal Utilities Authority Secure Sanitary Landfill
&
Transfer Station/Materials Recovery Facility

Under the provisions of N.J.S.A. 13:1E-1 *et seq.* known as the Solid Waste Management Act, this Solid Waste Facility Permit (Permit) is hereby issued to:

Cape May County Municipal Utilities Authority

FACILITY TYPES: Sanitary Landfill (Landfill) & Transfer
Station/
Materials Recovery Facility (TS/MRF
)

FACILITY NUMBERS: 0511000270 (Landfill) & 0516001389
(TS/MRF)
LOT & BLOCK NO.(S): 1, 2, 3, 4, 5, 6 & 7/247; 9/248; 2 & 3/123;
1/124; 1 & 4/128; 1, 2 & 3/128.02; 1/129;
1/130; 1/131; 1-29/131.02 and 1-9/137.02

MUNICIPALITY: Upper Township & Woodbine Borough

COUNTY: Cape May

PERMIT EXPIRATION DATE: July 2, 2002

This Permit is subject to compliance with all conditions specified herein and all regulations promulgated by the Department of Environmental Protection (Department) as same may be amended in the future. Any references herein to specific regulations include any future amendments thereto.

This Permit shall not prejudice any claim the state may have to riparian land, nor does it allow the Permittee to fill or alter or allow to be filled or altered in any way, lands that are deemed to be riparian, wetlands, stream encroachment areas or flood plains, or that are within the Coastal Area Facility Review Act (CAFRA) zone or are subject to the Pinelands Protection Act of 1979, nor shall it allow the discharge of pollutants to waters of this state without prior acquisition of the necessary grants, permits or approvals from the Department.

Compliance with the terms of this Permit does not relieve the Permittee of the obligation to comply

with all applicable state and federal statutes, rules and other permits.

Failure to comply with all of the conditions specified herein may result in revocation of this Permit and/or other regulatory or legal actions which the Department is authorized to institute by law.

This Permit is non-transferable without approval from the Department pursuant to N.J.A.C. 7:26-2.7(e).

August 12, 1983
Original Date of Issuance

Signed by John A. Castner, P.E., P.P., Acting Assistant Director
John A. Castner, P.E., P.P.
Acting Assistant Director
Office of Permitting & Technical Programs

July 2, 1997
Date of Repermitting

Solid Waste Facility Permit for the Cape May County Municipal Utilities Authority Secure Sanitary Landfill (Landfill) and the Transfer Station/ Materials Recovery Facility (TS/MRF), Woodbine Borough/Upper Township, Cape May County, Facility Numbers 0511000270 (Landfill) and 0516001389 (TS/MRF).

On August 12, 1983, the Cape May County Municipal Utilities Authority (Authority) received from the Department a " Certificate of Approved Registration and Engineering Design Approval " for its proposed landfill. The landfill was comprised of approximately 97 acres of lined area, consisting of five (5) sections; 1A, 1B, 1C, 1D and Phase II. The Authority, pursuant to a subsequent Agreement in June 1995 with the Pinelands Commission, reconfigured the landfill thereby reducing the total lined area to approximately 93 acres. The reconfigured landfill now includes 51 acres currently in operation and another area of 42 acres yet to be lined.

This Permit is contingent upon compliance with and implementation of the following:

A. GENERAL CONDITIONS

1. Permitted Waste Types

(a) Landfill

The following solid waste materials as identified by waste identification (ID) numbers and defined in N.J.A.C. 7:26-2.13(g), may be accepted for disposal at the landfill:

<u>I.D.</u>	<u>Waste</u>
10 institutional)	Municipal waste (household, commercial and
13	Bulky waste
13C	Construction and demolition waste
23	Vegetative waste except leaves pursuant to N.J.S.A. 13:1E-99.21
25	Animal and food processing waste
27	Dry industrial waste
27A	Waste material consisting of asbestos or asbestos containing waste
27I	Waste material consisting of incinerator ash or ash containing waste

(b) TS/MRF

The following solid waste materials as identified by waste identification (ID) numbers and defined in N.J.A.C. 7:26-2.13(g), may be accepted for processing and/or transfer at the TS/MRF:

<u>I.D.</u>	<u>Waste</u>
10	Municipal waste (household, commercial and institutional)
13	Bulky waste
13C	Construction and demolition waste
23 N.J.S.A. 13:1E-99.21	Vegetative waste except leaves pursuant to
25	Animal and food processing waste
27	Dry industrial waste

2. Prohibited Waste Types

The following waste materials, liquid or solid, as identified by waste identification (ID) numbers and defined in N.J.A.C. 7:26-2.13(g) and (h), may not be accepted for disposal at the landfill or for processing and transfer at the TS/MRF, unless otherwise noted:

<u>I.D.</u>	<u>Waste</u>
12	Dry sewage sludge
27A	Waste material consisting of asbestos or asbestos containing waste (prohibited only at the TS/MRF)
27I	Waste material consisting of incinerator ash or ash containing waste (prohibited only at the TS/MRF)
72	Bulk liquid and semiliquids
73	Septic tank clean-out wastes
74	Liquid sewage sludge

Leaves pursuant to N.J.S.A. 13:1E-99.21.

Regulated Medical Waste, Class 1 through 7, as per N.J.A.C. 7:26-3A.5.

Hazardous Waste as defined, identified or otherwise classified in N.J.A.C. 7:26G-5.

Recyclable materials as designated in the Cape May County District Recycling Plan (prohibited only at the landfill).

3. Recyclables

Recyclable materials designated in the Cape May County District Recycling Plan to be source separated pursuant to N.J.S.A. 13:1E-99.11 and 99.13b(2) shall not be accepted for disposal at the landfill.

Any recyclable materials described above, detected in a load of waste accepted at the landfill shall be handled by the Permittee pursuant to the landfill's Operation and Maintenance Manual.

Recyclable materials designated in a respective County/District Recycling Plan to be source separated in the municipality of origin, pursuant to N.J.S.A. 13:1E-99.13.b(2), shall only be accepted at the TS/MRF as per Condition C.4 (Waste Acceptance and Processing Rate) and as noted below. Any recyclable materials, unless specifically exempted in Condition C.6 (Materials Recovery Operations) or exempted in accordance with N.J.S.A. 13:1E-99.16d, that are detected in a load of waste accepted at the TS/MRF, shall be handled pursuant to the recyclables inspection plan listed at Condition C.2 (Recyclables Inspection Plan) of this Permit.

The Permittee shall maintain documented exemptions for clients secured pursuant to N.J.S.A. 13:1E-99.16d. The Permittee shall not accept any load from a commercial and/or institutional account that is not accompanied by documentation from that account which provides individual exemption status from the source separation requirements by the respective municipality having sole authority to grant this exemption pursuant to N.J.S.A. 13:1E-99.16d. Additionally, the Permittee shall furnish respective municipalities of origin with annual, or as required, reports listing the identity of the commercial and/or institutional generators, the quantity (in tonnage) of the designated materials delivered to Cape May County Municipal Utilities Authority for separation and the amount actually recycled.

4. Haulage Vehicles

Only vehicles properly registered, pursuant to N.J.A.C. 7:26-3, with the Department, unless exempt from the registration requirements pursuant to N.J.A.C. 7:26-3.3, and displaying the appropriate registration number and solid waste decal shall be admitted for loading and unloading of any solid waste at the facility. The facility shall be operated in accordance with N.J.A.C. 7:26-2.11.

5. Waste Delivery Haul Routes & Traffic Control

The Permittee shall ensure that all solid waste collection/haulage vehicles that access and egress the facility adhere to the designated primary truck routes as described in the Operation and Maintenance Manual for the landfill and " User fees, terms and conditions manual " for the TS/MRF. The Permittee shall post at the facility and provide photo-copies to the users of the facility the primary truck routes.

All vehicles hauling waste shall enter the site from Kearney Avenue which is the main access road located off Dennisville-Petersburg Road. Facility related vehicles shall not be backed, parked or queued on public streets or roads.

Waste deliveries to the facility shall be scheduled in such a manner as to minimize truck queuing on the facility property. Under no circumstances shall delivery trucks be allowed to back up onto public roads. Delivery vehicles shall adhere to the assigned truck routes as designated in the January 22, 1991 Amendment to the Solid Waste Management Plan and certified on June 27, 1991.

If the traffic generated by the operation of the facility results in congestion of surrounding roads, corrective measures shall be promptly developed, submitted to the Department for approval and subsequently implemented to alleviate any respective traffic related problems.

The Department reserves the right to require the Permittee to perform additional traffic surveys, if necessary, if all or part of the waste is redirected by the Permittee to out of county disposal facilities for an indefinite period of time.

6. On-site Traffic Control

On-site traffic control measures shall be implemented to provide for orderly vehicle movement on the facility grounds. The measures implemented shall include the appropriate use of lane delineations, signals and signs. All delivery trucks shall queue, as necessary, in areas designated for that purpose. All on-site roadways, except the temporary roads on the active areas of the landfill, utilized for vehicle traffic shall be constructed and maintained to withstand heavy traffic usage.

For the TS/MRF, queuing and staging of collection, transfer and recycling vehicles shall occur only in the respective areas designated for that purpose, as per " Traffic Control Plan " dated December 16, 1996 prepared by Manley C. Solheim, Jr., P.E.

7. Unauthorized Waste

A program shall be established and maintained for detecting and preventing the disposal of regulated hazardous waste and other unauthorized waste. The program shall include the random inspections of incoming loads, recording any inspections, and

training of any facility personnel to recognize regulated hazardous waste. The program shall include the following:

- a. Any truck suspected of hauling hazardous waste shall be stopped and inspected. Any vehicle found to be carrying a hazardous waste material as defined at N.J.A.C. 7:26G-5 shall not be permitted to unload at the facility.
- b. Continuous visual monitoring of the discharged waste shall be conducted by facility personnel. Any suspected unacceptable waste shall be removed from the processing stream.
- c. Any regulated medical waste delivered to the facility shall be handled as described in the operations and maintenance manual prepared for the facility. Any suspected hazardous waste or liquids found in a load accepted at the facility shall not be returned to the generator. Such material shall be segregated and stored in a secure manner and the discovery of any such wastes at the facility shall immediately be brought to the attention of the NJDEP Water and Hazardous Waste Enforcement Program, Regional Enforcement Office, at (609) 968-2640. After-work hours and weekend (or holiday) incidents shall be immediately reported to the NJDEP Environmental Action Line at (609) 292-7172. The Permittee shall secure the name of the collector/hauler suspected of delivering such waste to the facility and related information surrounding the incident, if available, and shall make this information known to the Department's enforcement personnel.

This program shall be included in the final Operations and Maintenance Manual prepared for the landfill and TS/MRF.

8. Hours of Operation & Processing

Permitted solid waste types shall be accepted for disposal at the landfill or for processing and transfer at the TS/MRF at times sufficient to meet the disposal needs of the County. The current operating times are listed below:

<u>Winter Schedule</u>	<u>Summer Schedule</u>	
8:00 AM to 4:00 PM	7:30 AM to 4:30 PM	Monday through Friday
8:00 AM to 12:00 NOON	7:30 AM to 2:30 PM	Saturday & Holidays (Memorial Day, Independence Day, Labor Day, Day after Thanksgiving, Christmas Eve and New Year's Eve)
Closed	Closed	Sunday

The holidays during which the facility will be fully closed are New Year's Day, Martin Luther King Day, President's Day, Good Friday, Columbus Day, Veterans Day, Thanksgiving Day and Christmas Day.

The winter schedule is effective from October through May. The summer schedule is effective from June through September. The Solid Waste Landfill Complex may be contacted at (609) 861-5701 to obtain a daily operating schedule for the facility.

The Department shall be notified of any changes in the operating hours of the facility. The entrance gate shall be posted with the aforementioned operating hours of the facility.

Any recyclable materials delivered in accordance with Condition C.4 (Waste Acceptance and Processing Rate) at the TS/MRF shall also adhere to the above stated schedule.

The Department reserves the right to revise the above schedule should the operation of this facility, under any circumstances, result in violations of the noise level standards established in Condition A.10 (Noise Control) of this Permit.

9. Vector Control

The sanitary landfill shall be operated in a manner which minimizes the propagation and harborage of insects, rodents and birds. Cover material shall be applied as needed to control vectors. An effective vector control program shall also be instituted and maintained at the TS/MRF.

If vectors still present a problem, the Permittee shall implement a program in compliance with the requirements of the New Jersey Pesticide Control Code, N.J.A.C. 7:30, by an applicator of pesticides certified in accordance with N.J.A.C. 7:30.

10. Noise Control

Noise control shall be implemented to ensure that sound levels generated by the facility operation, including vehicles, do not exceed the standards set forth by the New Jersey Noise Control Regulations at N.J.A.C. 7:29-1.2.

The Permittee shall prevent the continued entry to the facility of any vehicle not equipped with proper operating muffler systems or those vehicles which create excessive noise.

The Department reserves the right to require the Permittee to perform additional noise surveys to ensure continued compliance with N.J.A.C. 7:29.

11. Odor Control

The operation of the facility shall not cause any air

contaminant, including an air contaminant detectable by the sense of smell, to be present in the outdoor atmosphere in such quantity and duration which is, or tends to be, injurious to human health or welfare, animal or plant life or property, except for malodorous emissions emanating from the landfill which result in odors in areas over which the owner and/or operator has exclusive use or occupancy.

Malodorous emissions shall be controlled by the use of daily cover at the landfill. In the event that this is not satisfactory, a suitable deodorant shall be used. Malodorous solid waste shall be covered immediately after unloading with a minimum of six inches of cover material or approved alternative material.

For the operation of the TS/MRF, the Permittee shall comply with the conditions of the Air Pollution Control Permit (Certificate Number 095768) dated May 18, 1990 issued by the Department's Air Pollution Control Program pursuant to N.J.A.C. 7:26-8.2.

12. Fire Safety

An adequate water supply and/or fire fighting equipment shall be readily available on-site or on call to extinguish any and all fires. In case of a fire, the Permittee shall immediately notify the local police and fire department having jurisdiction and the NJDEP action line (609) 292-7172. The Permittee shall be responsible for initiating and continuing fire-fighting actions until all smoldering, smoking and burning ceases. The Permittee shall seek and obtain fire-fighting assistance if smoldering, smoking or burning persists for longer than 24 hours. The Permittee shall ensure that local fire companies are thoroughly versed in the emergency plan of action for a fire at the facility. Specific procedures shall be outlined in the final Operations and Maintenance Manual for the landfill as well as the TS/MRF.

Fire-fighting procedures and emergencies procedures shall be posted prominently in the work area and shall include the telephone numbers of local fire, police, ambulance and hospital facilities.

For the TS/MRF, the fire detection and protection system shall be maintained in operable condition at all times. Fire control equipment as shown on the drawing entitled " Operational Site Plan " shall be installed and maintained.

13. Security

Access to the site shall be restricted to facility personnel, authorized vehicles and authorized visitors only. Security procedures shall be implemented that provide for an effective means of controlling entry and exit at all times. Guards, attendants, visual monitors, or locked gates shall be utilized at all site entrance and exit roadways.

14. Safety Procedures

A copy of the operating safety procedures shall be posted prominently in the work area. The Permittee shall follow the Occupational Safety and Health Administration (OSHA) standards in the construction and operation of this facility for the safety of contractors, employees and other persons entering the premises.

Additionally, appropriate facility staff shall be trained to effectively respond to any equipment malfunction or emergency situation that may arise during facility operation.

15. Housekeeping

Routine housekeeping and maintenance procedures shall be implemented within the facility interior to prevent the accumulation of dust and debris on the public roads and to maintain general cleanliness in the working environment.

Litter at the landfill shall be controlled through the use of moveable fences of sufficient height or by an equivalent means. The litter fence shall be policed daily, and the litter collected shall be properly disposed of at the working face of the landfill.

Dust control at the landfill shall be affected by the spraying of water or the spreading of calcium chloride or an equivalent method approved by the Division as needed. Spraying of waste oil is prohibited.

The TS/MRF exterior grounds shall be maintained in a manner free of litter and debris. All areas within the TS/MRF where solid waste has come in contact shall be cleaned daily in accordance with the housekeeping plans of the O&M manual. All TS/MRF floor drains, oil/water separator, underground storage tank, sumps and catchment basins shall be maintained free of obstruction to facilitate effluent drainage.

The operation of the TS/MRF shall not result in the production of potentially unhealthy levels of dust. The Permittee shall implement, as necessary, the use of sprayed water when unloading and processing of Construction and Demolition Waste (ID # 13C) takes place.

Mud, soil, or other materials shall not be tracked onto any public roads by exiting vehicles. Effective measures shall be implemented to comply with this condition. If these measures prove ineffective in controlling soil tracking, the Permittee shall remove all soil or other materials from the tires of exiting vehicles by means of a high pressure steam (or water) cleaning apparatus combined with a rumble rack.

16. Facility Operator

Any private individual, entity or corporation selected by the Permittee to operate part or all of the facility activities shall be fully registered with the Department to conduct solid waste business in the State of New Jersey pursuant to the provisions set forth at N.J.A.C. 7:26-16.

17. Facility Personnel Training

All personnel who are directly involved in facility waste management activities or who operate, service or monitor any facility equipment, machinery or system shall successfully complete an initial program of classroom instruction or on-the-job training which includes instruction in the operations and maintenance of the equipment, machinery and systems and which teaches them to perform their duties in a manner that ensures the facility's compliance with the requirements of N.J.A.C. 7:26 and the conditions of all Departmental permits issued to the facility.

The training program shall ensure that appropriate facility personnel are able to effectively respond to any equipment malfunction or emergency situation which may arise. The training program shall provide instruction in the use of safety equipment, procedures for inspecting and repairing facility equipment, machinery and monitoring systems and the procedures to be followed during planned or unplanned shutdown of operations.

The training program shall require regular monitoring of incoming loads and shall include instruction related to identification and proper handling of suspected unauthorized waste types. Instruction in fire training and noise monitoring shall be provided to appropriate personnel.

18. Facility Staffing

The facility shall maintain sufficient staff to ensure proper, orderly, and safe operation of all materials handling, processing, monitoring and control, safety, emergency, and security equipment items. Concurrently, the level of staffing shall provide the capability to handle all routine facility maintenance requirements and also to respond to all emergency situations.

A fully trained and qualified foreman or supervisor who is designated and authorized by the Permittee to direct and implement all operational decisions shall be present at the facility during all operating hours.

19. Emergency Actions

In the event of an emergency, all measures outlined in N.J.A.C. 7:26-2A.8(b)42 shall be followed. The Department shall be notified immediately at (609) 292-7172.

20. Plans On-Site

One complete set of the approved engineering plans, the engineering reports, the final Operation and Maintenance Manuals, the operations record, the environmental and health impact statement and a copy of this Permit shall be kept at the facility and shall be made available for inspection by Department personnel or its designated representatives.

21. As-Built Certification

Upon completion of construction of each phase of the landfill, certification by a New Jersey Licensed Professional Engineer with expertise in civil or geotechnical engineering shall be provided as specified in N.J.A.C. 7:26-2A.7(a)20 through 24. The certification shall include a summary of daily quality control reports, all test results and two sets of as-built drawings.

No work performed under this Permit shall be considered complete until such engineer's certification has been submitted to and accepted by this Division. In the event that said certification is not received or is not accepted, the work shall be considered incomplete.

All certifications shall bear the raised seal of the licensed professional engineer, his signature and the date of certification. The certification shall include the following statement: "I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals under my supervision, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. I understand that, in addition to criminal penalties, I may be liable for a civil administrative penalty pursuant to N.J.A.C. 7:26-5 and that submitting false information may be grounds for denial, revocation or termination of any solid waste facility permit or vehicle registration for which I may be seeking approval or now hold. "

22. Duration of Permit

This Permit shall be effective for a maximum period of five (5) years from the date of its last issuance. This Permit may be renewed at that time upon proper application, in accordance with procedures outlined in N.J.A.C. 7:26-2.7(b).

23. Right of Entry

The Permittee, by acceptance of this permit, hereby authorizes entry by Department representatives to make whatever inspections, searches, or examinations are deemed necessary by

those representatives to determine the extent of compliance with any conditions of this Permit.

24. Operations Record

The facility shall not receive waste from any generators other than those specified in the Cape May County District Solid Waste Management Plan and the regulations on Interdistrict and Intradistrict Solid Waste Flow, N.J.A.C. 7:26-6.1 through 6.7. Records of the facility's operations shall be maintained on a daily basis by the Permittee. By the 20th day of every month, submit a copy of the daily record required by N.J.A.C. 7:26-2.13, covering the asbestos disposal activity of the previous month. The information shall be submitted to:

New Jersey Department of Environmental Protection
Bureau of Resource Recovery and Technical Assistance
Division of Solid and Hazardous Waste
P.O. Box 414
Trenton, New Jersey 08625-0414

The information shall include, but not be limited to, the following:

- a. The weight of solid waste delivered to the facility for each waste type permitted by this Permit;
- b. The number of collection vehicles delivering waste to the facility;
- c. The volume and tonnage of waste flow, reported by type, from each municipality;
- d. The volume and tonnage of waste removed for disposal and the facility receiving the waste (when applicable);
- e. The number of vehicles removing waste for disposal or recyclables for reuse or further processing from the facility;
- f. The tonnages and types of source separated recyclable materials received pursuant to N.J.A.C.7:26-2.11(b)15 and recyclable materials separated from the solid waste received.

Where applicable, the information required to be recorded in the daily record shall be supplied by the transporter to the facility operator on the waste origin/disposal (O&D) form (or duplication of same). The O&D forms shall be kept by the Permittee for a minimum of one year and shall make them available for inspection by representatives of the Department or the local health department at any time during normal working hours. The daily record shall be maintained at the operating facility on forms provided by the Department or duplication of same, or on systems acceptable to the Department and shall be kept for five years. The daily record shall be available for

inspection by representatives of the Department, county lead agency certified by the Department pursuant to N.J.S.A. 26:3A-2 for any county from which solid waste is received, or the local health department at any time during normal working hours.

The information provided on the daily records, O&D forms and monthly summary shall denote compliance with the adopted amendments to N.J.A.C. 7:26-2.13, 2B.9 and 2B.10 (mixed load rules).

B. SANITARY LANDFILL

I. DESIGN AND CONSTRUCTION

1. Landfill's Baseline System Profile (Phases ID, IE, & IF)

The landfill's double composite baseliner system profile, in descending order, shall be as follows:

- . A 24-inch drainage layer consisting of sand with a minimum hydraulic conductivity of 1×10^{-2} cm/sec after compaction. This drainage layer shall contain eight-inch slotted schedule 80 PVC primary collection pipes to convey the leachate to the perimeter manholes.
- . A primary geomembrane liner consisting of a textured high density polyethylene (HDPE) geomembrane possessing a nominal thickness of 60 mils.
- . A primary geosynthetic clay liner (GCL) having a thickness of approximately 1/4 inch and a maximum hydraulic conductivity of 5×10^{-9} cm/sec. The geosynthetic clay liner will consist of a layer of sodium montmorillonite (bentonite) sandwiched between two layers of geotextile.
- . A secondary leachate drainage system consisting of a geocomposite drain, a layer of HDPE geonet bonded between two layers of non-woven geotextiles.
- . A secondary geomembrane liner consisting of a textured high density polyethylene (HDPE) geomembrane possessing a nominal thickness of 60 mils.
- . A secondary geosynthetic clay liner having a thickness of approximately 1/4 inch and a hydraulic conductivity of 5×10^{-9} cm/sec. The geosynthetic clay liner will consist of a layer of sodium montmorillonite (bentonite) sandwiched between two layers of geotextile.
- . A compacted subgrade.

The minimum slopes of the liner shall be 2% on controlling slopes and 0.5% on remaining slopes.

The geosynthetic clay liner (GCL) material used in the landfill baseliner shall meet the required permeability as specified above. The GCL shall also demonstrate adequate interface and internal shear strength under static as well as seismic conditions as described in the approved QA/QC Report. The GCL shall be maintained in a dry state up to and including the time that it is covered by the geomembrane. Random sampling of the GCL during manufacturing shall be performed to ensure proper quality control. The samples shall be tested for the properties such as, but not limited to, uniformity, thickness, bentonite weight, tensile properties, permeability and interface shear strength in conformance with the ASTM Standards and the approved QA/QC Report. The quality control engineer shall review the certified copies of the manufacturer's test results and report any nonconformance to the permittee prior to installation of any GCL.

The geomembrane liner shall be of high quality materials and shall meet the minimum requirements as outlined in the most recent version of the National Sanitation Foundation's publication, " Standard Number 54 Flexible Membrane Liners ". The geomembrane shall be compounded from first quality virgin materials. No regrinded or reprocessed materials containing encapsulated scrim shall be used in the manufacturing of the geomembrane. During field seaming, a destructive seam test sample shall be prepared for every 500 feet (or as otherwise approved by the Division for that particular construction event) of field seam. All samples shall be tested for peel and sheer strength.

All tests performed during the construction and installation of the landfill's baseliner system shall be in accordance with ASTM, AASHTO or equivalent methods and the approved QA/QC Report. All test results shall be submitted to this Division along with a New Jersey Licensed Professional Engineer's certification in accordance with Condition A.21 (As-Built Certification) that the liner has been constructed in accordance with this Permit.

2. Leachate Collection/Detection Systems and Disposal

The primary leachate collection system comprising eight-inch diameter perforated polyvinylchloride (PVC) pipes will convey the leachate to the solid eight-inch diameter high density polyethylene (HDPE) pipes which will transport the collected leachate to a leachate collection manhole. A series of primary and secondary leachate collection manholes are provided for each operational phase in the landfill. The primary manholes are interconnected by solid HDPE pipe which is a header system. The leachate flows by gravity through the header system to the most downgradient manhole which is a pumping station.

The secondary leachate collection/detection system will run parallel to the primary system. The secondary system is identical to the primary system except that 6-inch perforated

polyvinylchloride (PVC) pipes will be utilized to collect the leachate within the landfill baseliner. The primary and secondary leachate collection systems are not connected to each other to allow for independent monitoring of the secondary collection system.

The secondary pump stations will convey liquid directly into primary pump stations. Each primary pump station will convey leachate to the leachate storage tanks via HDPE forcemains. Flows from primary and secondary pump stations will be metered prior to discharge through individual flow meters with totalizers, located in a common chamber.

Each proposed phase (Phase ID, Phase IE, and Phase IF) will be provided with one set of pumping stations. A fourth set of pumping stations will also be provided for existing Phase IC as one of its existing pumping stations is to be abandoned during the construction of Phase ID. The primary and secondary pumps shall be submersible, explosion-proof dewatering pumps suitable for continuous duty. The landfill shall maintain at least one spare primary pump and one spare secondary pump as contingency in case of pump failure.

Spill prevention measures shall be implemented during conveyance of the leachate. Leachate shall not be stored for a period in excess of thirty (30) days. Leachate shall be removed from the storage tank and hauled off-site for treatment and final disposal in accordance with Department regulations. The pumps in the primary and secondary pump stations shall be designed to be operated automatically by float switches. The float switches shall include pump off, pump on, high and low alarm level. The leachate collection system shall be designed such that the head of the leachate within the primary collection system will be minimized to one foot under normal conditions.

The leachate collection system shall be cleaned out annually (or as approved by the Division) to maintain proper flow.

3. Final Cover

The final cover shall consist of the following capping system from top to bottom:

- . A 6-inch layer of vegetation bearing topsoil.
- . 12 inches of cover soil as a protective layer with a hydraulic conductivity equal to or less than the hydraulic conductivity of the drainage layer.
- . 12 inches of sandy soil as a drainage layer with a hydraulic conductivity of 1×10^{-3} cm/sec or greater. The drainage layer will consist of 4-inch slotted and solid corrugated polyethylene (CPE) pipes which will intercept water flowing through this layer and subsequently convey it into the perimeter channels. The 4-inch slotted CPE

pipe spacing will be 35 feet on the plateau of the landfill and 55 feet across the 33 percent slope unless the actual fill material justifies alternative spacing. The 4-inch solid CPE pipes will be spaced approximately 50 feet along the 33 percent slope.

- . A 40 mil linear low density polyethylene (LLDPE) geomembrane. If high density polyethylene (HDPE) geomembrane is selected for use, its minimum thickness shall be 60 mils. The geomembrane used shall be textured on both sides on slopes greater than 7 percent and smooth on slopes less than 7 percent.
- . A 12-inch intermediate cover/gas venting layer consisting of clean granular soil (maximum grain size of 2 inches) directly overlying the refuse layer. This layer consists of 6-inch slotted polyethylene pipes within a shallow trench filled with subangular stone at an approximate spacing of 200 feet.

The reconfiguration/expansion of the landfill is to be constructed and operated in three new phases comprising approximately twelve (Phase ID), thirteen (Phase IE), and seventeen (Phase IF) acres each. Final cover, as defined herein, shall be applied to each phase after solid waste placement has reached final elevations at this landfill. In the interim, the Permittee shall construct a temporary cover system, as delineated in the approved plans, for phases that reach interim grade where no landfilling will be performed for a period exceeding six months. The temporary cover shall be designed to help control gases and odor; reduce maintenance and leachate generation; promote drainage and minimize erosion while the landfill is going through settlement and subsidence.

The final cover shall be stabilized by the establishment of vegetative cover in accordance with the Soil Erosion and Sediment Control Plan.

4. Ground and Surface Water Monitoring

The location, sampling and analyses of all ground water monitoring wells shall be in accordance with the approved New Jersey Pollutant Discharge Elimination System (NJPDES) permit for the landfill.

Ground water discharges at the landfill shall be in accordance with the approved New Jersey Pollutant Discharge Elimination System/Discharge to Ground Water (NJPDES/DGW) permit. There are no surface water discharges.

5. On-Site Baseline

In accordance with N.J.A.C. 7:26-2A.7(a)2, the on-site baseline consisting of two vertical and horizontal control monuments shall be maintained at the landfill.

6. Landfill Gas Recovery and Monitoring

The Permittee's vendor Zahren Alternative Power Corporation (ZAPCO) received an Air Pollution Control Permit dated December 28, 1995 and a Disruption Approval dated April 4, 1996 from the Department for the installation and operation of a landfill gas recovery (flare) system to control emissions at this landfill.

The existing landfill gas flaring system, which is fully operational, has been designed to recover landfill gas from Phases IA, IB, and the currently operating Phase IC. The recovery system, however, collects landfill gas only from Phases IA and IB now. A gas collection system capable of recovering the landfill gas from Phase IC will be installed as soon as practical.

The landfill gas collection and transmission system for the expansion will be constructed during several phases of the landfill development. Landfill gas collection measures for the expansion will consist of : 1) Active gas collection at primary manholes; 2) Active gas collection within areas receiving intermediate cover, and 3) Active gas collection at final grades. As an area becomes operational, the initial gas collection will be performed at primary manholes. Gas will be collected from the primary leachate collection system in the base of the landfill. As the landfill operations reach the intermediate grades as shown on the Engineering Plans, an intermediate cover and gas collection system will be constructed. The final gas collection system will be constructed in conjunction with the final cover. The gas transmission system which consists of piping that transports the collected gas will be connected to an existing landfill gas flare system and/or energy recovery process. As a contingency measure for control of gas and odors during landfill operations, temporary operational gas collection shall be utilized if deemed necessary at the landfill facility.

The landfill gas collection and transmission system shall be capable of controlling malodorous gas emissions and preventing the migration of landfill gases off-site. The collected gas shall be flared on-site or used for energy applications. The operation of the landfill gas collection system shall be in accordance with an approved Air Pollution Control Permit.

A methane gas survey shall be performed by ground probing on a quarterly basis around the perimeter of the buffer zone of active landfill area and annually around the entire perimeter of the buffer zone of the sanitary landfill. The results shall be submitted to the Bureau within thirty (30) days of testing. The Permittee shall notify the Bureau within twenty-four (24) hours if and when methane is detected at or above 25% of the lower explosive limit.

7. Landfill Service Capacity

The areal extent of the reconfigured/expanded landfill shall be approximately 42 acres of additional lined area which is adjacent to the existing cells. The new landfill sections will consist of Phases ID, IE, and IF with an area of approximately 12 acres, 13 acres and 17 acres, respectively. The existing landfill area comprises Phases IA, IB, and IC. Disposal of waste shall be limited to this 93 acre area. Final elevations, including final cover, shall not exceed 255 feet above mean sea level (msl) for the entire landfill.

8. Soil Erosion and Sediment Control

The Permittee shall comply with all requirements of the Soil Erosion and Sediment Control Plan as certified by the Cape-Atlantic Soil Conservation District. All soil erosion and sediment control practices shall be installed in their proper sequence and be regularly maintained.

9. Pinelands Commission Approval

This Permit is contingent upon the applicant receiving approval from the Pinelands Commission and complying with any conditions imposed therein. No development for the proposed landfill expansion shall commence until and unless the Pinelands Commission has granted approval to the proposed development.

10. Freshwater Wetlands

A minimum 300 feet buffer zone shall be maintained from those areas that have been classified as freshwater wetlands as shown on the Plan Sheets submitted with the application, as amended. No construction, development or disturbance shall occur within this buffer zone.

11. Bird Control and Deterrent Program

As presented in the report entitled " Report on the Effectiveness of the Bird Deterrent Program, Cape May County Secure Sanitary Landfill, Woodbine, New Jersey" dated August 1996 prepared by EMCON, the Permittee has developed and implemented a Bird Control and Deterrent Program by which bird attraction at the existing landfill has been successfully controlled. Based on its review of the aforementioned report, the Federal Aviation Authority (FAA), in its letter dated October 16, 1996 to the Department, indicated that the scavenging and soaring birds associated with the landfill should not pose an additional hazard to aviation activities at the Woodbine Municipal Airport. The FAA further indicated that implementing current Bird Deterrent Program at the proposed landfill along with the recommendations noted in the aforementioned report would be acceptable to FAA. Therefore, in order to ensure that the proposed expansion and the existing landfill continue to safely co-exist with the proposed expanded Woodbine Airport, the following measures, but not limited to, as recommended in the aforementioned report shall be incorporated

into the Bird Control and Deterrent Program and, subsequently, implemented:

- a. Provide a tighter spacing of metal wires over the exposed working face of the landfill to prevent access. The wires are strung between the portable poles and visual scare items such as mobile balloons and highly-reflective and wind activated tape are placed on the wires or supporting poles.
- b. Keep the landfill's " rover " mobile which utilizes highly visually identified vehicle so that the pyrotechnic screamers and bangers are fired from various locations to keep deterrent efforts non-routine.
- c. Place wire mesh or wire grid covers over sedimentation basins if those ponds become preferred loafing or roosting sites.
- d. Record weather conditions on the Seagull Deterrent Plan Daily Report to provide correlation between gull behavior and weather conditions.
- e. Suggest to the Chairman of the Woodbine Port Authority and site managers of nearby sand and gravel operations that their properties may also have a unique draw for scavenging or soaring birds and that they may want to consider implementing some passive or active strategies for bird control.

A Bird Control and Deterrent Plan addressing the above-stated recommendations shall be incorporated into the Final O&M Manual.

The Department reserves the right to require additional or modified controls to ensure that the Bird Control and Deterrent Program remains effective or revoke the Permit if the Plan becomes ineffective.

12. Future Mining of Phase IB

It is indicated in the application that after Phase IF becomes operational, the Permittee will initiate the mining and reclamation of Phase IB of the landfill. Please be advised that this Permit shall not be construed as an approval of any future mining operations at this landfill. The Permittee shall submit a complete application for the implementation of a full-scale landfill mining and reclamation project to the Department and obtain an approval prior to initiation of any mining operation.

The application shall be in conformance with the rules and policies of the Department governing landfill mining and reclamation activities at that time.

13. Construction Quality Assurance/Quality Control (QA/QC)

The Quality Assurance/Quality Control Plan as contained in the application and dated December 1995 shall be adhered to during

all construction phases. Quality control inspectors shall be at the site during construction to ensure and verify that the design and permit requirements are properly implemented.

A quality assurance inspector approved by the Department shall be at the site during the initial construction phase of the subgrade preparation, liner system and leachate collection system. The inspector shall oversee the remainder of this work on a periodic basis as necessary. The quality assurance inspector shall conduct this work independent of the resident QA/QC team. The scheduled frequency of inspections by the independent quality assurance inspector may be reduced or discontinued by the Department in accordance with N.J.A.C. 7:26-2A.7(a)15.

At least 30 days prior to the start of construction, the quality assurance inspector shall meet with the Department to establish reporting procedures and frequency, in accordance with the construction schedule. Daily QA/QC reports shall be prepared and maintained in a log book which shall be available at the job site for inspection by the Department. All test results shall be included in the log book.

The resident QA/QC team shall ensure that all Quality Assurance and Quality Control procedures are followed pursuant to Departmental guidelines as stated in the Solid Waste Management regulations, N.J.A.C. 7:26-1 et seq., in the construction of the landfill.

14. Engineering Designs and Documents of Record

The construction and operation of the landfill shall be in accordance with the provisions of N.J.A.C. 7:26-1 et seq., and the following reports and engineering designs. In case of conflict, the later designs shall supersede the earlier engineering designs.

- a. Consolidated Permit Application Form (CP-1) and Solid Waste Supplement To CP-1 Form, signed on December 19, 1995 by Charles M. Norkis (the applicant), P.E., Chief Engineer, Cape May County Municipal Utilities Authority.
- b. Engineering Plans, sheets 1, 2, 4 through 14 and 19 through 24 dated December 21, 1995 signed and sealed by Peter J. Carey, N.J.P.E. License No. 26900 and prepared by EMCON.
- c. Engineer's Report dated December 1995 prepared by EMCON.
- d. Supplemental Environmental and Health Impact Statement dated December 1995 prepared by EMCON.
- e. Geotechnical Report dated December 1995 prepared by EMCON.

- f. Closure and Post-Closure Plan dated December 1995 and revised February 1996 prepared by EMCON.
- g. Supplemental Operation and Maintenance (O&M) Manual dated December 1995 prepared by EMCON.
- h. Quality Assurance and Quality Control Plan dated December 1995 prepared by EMCON.
- i. A report entitled " Report on the effectiveness of the bird deterrent program, Cape May County Secure Sanitary Landfill, Woodbine, New Jersey " dated August 1996 prepared by EMCON and submitted by Charles M. Norkis, Chief Engineer, Cape May County Municipal Utilities Authority.
- j. The following documents submitted as part of the Addendum to the Application for a Solid Waste Facility Permit by EMCON in response to the Notice of Technical Deficiency dated October 3, 1996:
 - i. A letter dated November 26, 1996 from Kenneth Gallagher of EMCON to Nelson Hausman.
 - ii. Engineering Plans, sheets 3A and 3B dated November 26, 1996 and last revised November 11, 1996, sheets 15, 16 and 17 dated November 26, 1996 and last revised November 8, 1996, sheet 18 dated November 26, 1996 and last revised November 26, 1996, and sheet 25 dated November 26, 1996, signed and sealed by Peter J. Carey.
 - iii. A Report entitled " Addendum to the Application for a Solid Waste Facility Permit, Cape May County Reconfigured Landfill, Cape May County, New Jersey" dated November 1996 prepared by EMCON.
- k. The following documents submitted for the design and construction of an active methane venting system :
 - i. CP # 1 Application Form, signed by the applicant (Cape May Landfill Gas Associates L.P.) on November 2, 1995.
 - ii. A report entitled " Design Report, Landfill Gas Emission Control System for the Cape May County Secure Sanitary Landfill in Upper Township, NJ " dated November 17, 1995, prepared by SCS Engineers, PC.
 - iii. Supplemental information regarding the " Second Technical Notice of Deficiency" dated March 12, 1996, prepared by SCS Engineers, PC.
 - iv. Drawings 1 to 5, showing gas system design, boring

locations and site topography, prepared by SCS Engineers, signed and sealed by Earl T. Conrad, P.E., New Jersey License No. 28317. Drawings 1, 2 and 3 are dated March 7, 1996 and Drawings 4 and 5 are dated October 31, 1995.

II. OPERATIONS, MAINTENANCE AND MONITORING

1. Final Operation and Maintenance Manual

The Final Operations and Maintenance (O&M) Manual shall contain, in full, all relevant procedures for the operations and maintenance of the landfill. References to other manuals shall not be used in place of a full listing of O & M Manual procedures.

The Final Operations and Maintenance Manual shall be submitted to the Department at least sixty (60) days prior to initiation of landfilling operations in the newly constructed landfill.

2. Inspection, Operation and Maintenance Schedules

The following shall be performed on a daily basis:

- a. Record leachate amounts in primary and secondary collection systems
- b. Inspect leachate pumping systems
- c. Inspect leachate storage tank
- d. Inspect methane gas recovery systems and flare
- e. Police buffer zone and site entrance for litter
- f. Record precipitation data from the meteorologic monitoring system
- g. Inspect storm water sedimentation and detention basins
- h. Inspect truck scale for debris, ice, damage

The following shall be performed on a weekly basis:

- a. Inspect all environmental control systems
- b. Inspect ground water monitoring wells for damage
- c. Check leak detection system pipes and manholes
- d. Inspect the temporary cover and drainage swales
- e. Inspect leachate collection pipes, manholes and cleanout risers
- f. Inspect pump station equipment and force main
- g. Check site lighting

The following shall be performed after storm events:

- a. Inspect all environmental control systems
- b. Inspect sedimentation and detention basins and surface runoff structures
- c. Inspect leachate collection pipes, manholes and cleanout risers
- d. Inspect pump station equipment and force main
- e. Inspect the temporary cover and drainage swales

The following shall be performed on a quarterly basis:

- a. Conduct methane gas survey around perimeter of the buffer zone of active landfill areas
- b. Inspect portable fire extinguishers

The following shall be performed on an annual basis:

- a. Perform topographic survey of landfill
- b. Inspect leachate storage tank for leaks
- c. Conduct methane gas survey around perimeter of the buffer zone of the sanitary landfill
- d. Inspect and test leachate collection pipes
- e. Inspect emergency equipment

The following shall be performed biennially:

- a. Survey the baseline vertical and horizontal control monuments
- b. Overhaul leachate pumping system
- c. Overhaul methane gas pumping system

In addition to the above, inspection, operation and maintenance of other aspects of the landfill shall be performed, as necessary, in order to meet the terms of this Permit and all applicable regulations.

The Permittee shall record the results of the inspections in a log book which shall be maintained at the sanitary landfill office and be available, at all times, for inspection by the Department. These records shall include the date and time of the inspection, the name of the inspector, a notation of observations and recommendations, and the date and nature of any repairs or other remedial action.

3. Waste Disposal Methods

The working face shall be confined to the smallest practical area, as is consistent with the proper operation of trucks and equipment, in order that the area of waste material exposed during the operating day is minimized. The maximum working face width shall not exceed 150 feet. At no time shall the area of exposed waste be greater than 15,000 square feet. The lift height of a daily cell, including cover soil, shall not exceed 12 feet. Waste shall be compacted in two foot layers.

Bulky waste and any sharp or penetrating objects shall not be disposed of in the first four feet of the initial lift.

4. Cover Requirements

Daily and intermediate cover shall be of the types that can be workable under all weather conditions.

A sufficient quantity of cover material shall be available at all times to ensure proper operation of the landfill. At the end of each day, at least 6 inches of soil or alternative cover material as approved by the Department, as daily cover, shall be placed on areas of the solid waste working face that will be exposed for less than 24 hours. Intermediate cover, which shall consist of at least 12 inches of soil, shall be applied to all surfaces exposed for any period exceeding 24 hours.

5. Surface Water Control

The grade and thickness of cover material on all surfaces of the facility shall be maintained regularly so as to prevent the occurrence of ponding of water anywhere on the active landfill area except in designated storm water control ponds. All provisions of the drainage plans as indicated in the approved engineering design shall be implemented. The channels and drainage structures shall be regularly maintained. Any drainage from the active landfill area shall be such as not to cause siltation.

6. Closure and Post-Closure Plan

The Permittee shall comply with the requirements of N.J.A.C. 7:26-2A.9 for the closure and post-closure care of this facility. Failure to comply with the requirements of any closure plan approval issued from the Department may result in the revocation of this Permit.

7. Summary of Required Submittal

The following information shall be submitted to the Bureau of Landfill & Recycling Management, Division of Solid and Hazardous Waste:

<u>Document</u>	<u>Due Date</u>
i. Perimeter gas monitoring results	quarterly
ii. Leachate monitoring results semiannually (quality and quantity)	
iii. Daily precipitation summary	quarterly
iv. Topographic survey before May 1)	annually (
v. Closure and Financial Plan Two Year Update	biennially

(C) TRANSFER STATION/ MATERIALS RECOVERY FACILITY (TS/ MRF)

1. Referenced Engineering Plans and Documents

The construction and operation of the TS/MRF shall be in accordance with the provisions of N.J.A.C. 7:26-1 et seq., the conditions of this Permit, and the submissions specified as stated below.

- a. "Amended Solid Waste Facility (SWF) Permit Renewal Application" for Cape May County Utilities Authority dated December 18, 1996 and submitted on December 23, 1996 by Cape May County Utilities Authority (CMCMUA) in response to the Notice Of Deficiency dated August 30, 1996 and as per meeting held on September 20, 1996 between CMCMUA and the Department. The submittal included the following:
 - i. Addendum to the Application for a Solid Waste Facility Permit Renewal.
 - ii. Solid waste facility permit application form dated December 16, 1996 submitted as an Appendix A.
 - iii. Updated Engineering Report and Environmental Health Impact Statement last revised December 1996.
 - iv. Operations and Maintenance Manual last revised December 1996.
 - v. Operations Site Plans (Appendix B), Current Area Utilization Map (Appendix C), and Traffic Control Plan (Appendix D), prepared by CMCMUA and as referred in Condition C.1e herein.
 - vi. Appendix E entitled " 1997 Terms and Conditions for the use of the CMCMUA Solid Waste & Recycling Facilities ".
- b. A letter dated January 4, 1991 from William F. Harrison, Assistant Director, Pinelands Commission to Anthony Cavalier, Chief, Bureau of Small Facility Review, Division of Solid Waste Management.
- c. As-Built Certification consisting of the engineering drawings (Record Drawings 1-23, Job Number 157204) provided by Mr. Vincent S. Wroniewicz, N.J.P.E. License No. 21531 and prepared by Killam Associates. The date of the certification is November 13, 1991.
- d. End-Market information dated February 19, 1997 submitted by the CMCMUA to the Department on February 24, 1997. The end-market information is a part of Operation and Maintenance Manual.
- e. The following engineering drawings, prepared by the Cape May County Municipal Utilities Authority, signed and

sealed by Manley C. Solheim, Jr., N.J.P.E. License No. 32888 on December 16, 1996, with the latest revision dates shown:

- i. Operational Site Plan for Bulky Waste Facility, Drawing No. 1 last revised December 16, 1996.
- ii. Current Area Utilization, Drawing No.1 last revised December 16, 1996.
- iii. Traffic Control Plan, Drawing No.1 dated December 16, 1996.

In case of conflict, the most recent revisions and supplemental information approved by the Department shall prevail over prior submittals and designs, and the conditions of this Permit shall supersede those of the engineering design report, environmental and health impact statement, and the TS/MRF's operation and maintenance manual.

2. Recyclables Inspection Plan

The Permittee shall implement the Recyclables Inspection Plan described in the Operation & Maintenance Manual. As provided, the facility shall only accept recyclable materials designated by the respective County/District Solid Waste and Recycling Plans as source separated, in accordance with Condition C.4 (Waste Acceptance and Processing Rate) and pursuant to the exemptions as noted in Condition A.3 (Recyclables).

Cape May County Municipal Utilities Authority shall consult with the respective county recycling coordinator on a quarterly basis to review those recyclables that are designated as source separated pursuant to N.J.A.C. 13:1e-99.13b(2). Should these materials be detected in solid waste loads, the respective county recycling coordinator shall be notified in writing. Whenever possible, the generator failing to source separate these recyclables shall be identified and reported to the respective county. The revised recyclables inspection plan shall be incorporated in the Final Operation and Maintenance Manual which shall be kept at the TS/MRF at all times.

The Division of Solid and Hazardous Waste reserves the right to revise (as necessary) the above recyclable inspection plan.

3. Operations and Maintenance Manual

The Permittee shall maintain at all times a copy of the final Operations and Maintenance (O&M) Manual referenced at Condition C.1a and C.1d of the Permit which is being approved herein for the current operations. Upon approval of the proposed processing of Class B recyclable materials which will be performed outside the TS/MRF building, the O&M Manual for the TS/MRF shall be updated and submitted to the Department for approval.

The final O&M Manual includes the following sections:

- a. A description of the TS/MRF operation, including
 - (1) A statement of the days and hours for receiving waste (including recyclables), for processing waste and recovering recyclable materials, and for transporting (transferring) recovered materials and waste residues from the TS/MRF;
 - (2) A listing and brief description of equipment items of the following types: materials handling, processing, monitoring and control, safety, emergency, security, and structural. As applicable, a description shall include the item's common name, manufacturer's or trade name (if different), manufacturer, model number, capacity, statement of function, and brief description of how the item is operated;
 - (3) Brief summary narratives that describe the following:
 - (a) The overall operations of the TS/MRF.
 - (b) All monitoring and control functions which are part of the TS/MRF operations.
 - (c) All security functions (including alarms and communications) which are part of the TS/MRF operations.
 - (d) Measures for controlling on-site litter and debris and preventing wind-blown dust and other materials from leaving the site.
 - (e) Measures for preventing and detecting fires, and equipment and procedures for extinguishing fires.
 - (f) Measures for controlling arthropods and rodents.
 - (g) Measures for controlling noise generation.
 - (h) Procedures for inspecting incoming loads of solid waste and preventing the receipt of prohibited waste types.
 - (i) Procedures for removing small quantities of prohibited waste types from an incoming load and storing them temporarily in a secure area pending Department instructions for disposal, or for storing entire loads of prohibited waste types.
 - (j) Measures to handle unusual peak loading which

may exceed the TS/MRF's design capacity.

- (k) Measures to handle incoming waste flow during periods of emergencies, equipment breakdown, or TS/MRF shutdown.
- (l) Measures to control on-site traffic.
- b. An inspection plan which includes inspection schedules that will ensure maximum TS/MRF availability and compliance with this Permit. The frequencies of inspections shall be defined based on manufacturers' recommendations and engineering judgement regarding likely equipment wear, deterioration, or malfunction. Schedules for inspecting materials handling, processing, monitoring and control, safety, emergency, security, and structural equipment shall be included.
- c. A maintenance plan, which includes schedules for preventative maintenance activities per manufacturers' recommendations, anticipated repairs or major equipment replacement; an analysis of spare parts inventory needs; maintenance contracts with outside vendors; and contracts with equipment dealers to supply standby or emergency equipment.
- d. A TS/MRF safety plan which describes the operating procedures to be followed to protect TS/MRF personnel and other persons from injury. The plan shall demonstrate compliance with the occupational safety and health standards for general industry, 29 CFR 1900 to 1910. The plan shall also implement industrial safety standards such as the latest amendments of ASME B20.1-1990 for conveyors and ANSI Z244.1-1982 regarding electrical lockout.
- e. An emergency contingency plan which delineates procedures for responding to fire, explosions, or sudden or non-sudden release of harmful substances including hazardous wastes to the air, soil, surface water or ground water. The contingency plan shall contain a description of the actions TS/MRF personnel shall take in the event of various emergency situations, a description of arrangements made with the Department and local police and fire departments which allow for immediate entry into the TS/MRF to respond to an emergency situation, and a list of names, addresses and telephone numbers (office and home) of all persons qualified to act as an emergency coordinator for the TS/MRF. The list shall be kept up to date. Where more than one person is listed, one shall be named as a primary emergency coordinator and others shall be listed in the order in which they will assume responsibility as alternates.

Copies of the contingency plan shall be submitted separately (that is, without the balance of the O&M

Manual) to the local police and fire departments, the local and county health departments, and other applicable offices of emergency management.

- f. A TS/MRF staffing plan which includes the job title and job description for each position at the TS/MRF. The descriptions shall include duties and performance standards, and the requisite skills, education and other qualifications required for each position.
- g. A staff training plan which defines the types and amounts of both initial and follow-up training to be provided to the TS/MRF personnel. The plan shall include instruction in the operation, inspection, and maintenance of the TS/MRF equipment, machinery, or systems which teaches the personnel to perform their duties in a manner that ensures the TS/MRF's compliance with the requirements of N.J.A.C. 7:26-1. et seq. and the conditions of all Departmental permits issued to the TS/MRF.

The plan shall ensure that TS/MRF personnel are able to respond effectively to any emergency situation which may arise. It shall provide instruction on the use of safety equipment and the procedures to be followed during planned or unplanned shutdown of operations. It shall also include the inspection of incoming waste loads for the identification of suspected unauthorized wastes and the proper handling of such wastes. It shall also include fire training specifically applicable to this type of facility.

- h. A recyclables inspection plan developed in accordance with Conditions A.3 (Recyclables) and C.2 (Recyclables Inspection Plan) of this Permit.

Any subsequent changes to be made to the approved O&M Manual by the Permittee shall not be implemented until approved by the Department.

4. Waste Acceptance and Processing Rate

At no time shall recyclables or wastes be delivered to the TS/MRF at a rate exceeding the TS/MRF's capacity to store and process same. Deposition of waste is allowed in only those areas within the building specifically identified in the design for such purposes. Under no circumstances shall waste be deposited beyond the confines of the building.

The TS/MRF is permitted to accept, process or transfer solid waste and recyclables at a rate of no more than 249 tons per day. This waste acceptance and processing rate shall be inclusive of all solid waste received at the TS/MRF as well as all tonnages of source separated recyclables received pursuant to N.J.A.C.7:26-2.11(b)15.

5. Waste Retention Time

No solid waste shall be allowed to remain on the tipping floor overnight.

6. Materials Recovery Operations

The materials recovery operations at the TS/MRF shall meet the following criteria:

- a. In accordance with the solid waste facility application listed at Condition C.1 (Referenced Engineering Plans and Documents), the Permittee shall recover from daily receipts and store within the TS/MRF as appropriate all types of Class A and/or Class B recyclable materials. The Permittee may store these materials on site for ultimate transportation to a recycling center as defined in N.J.S.A. 13:1E-99.13, N.J.A.C. 7:26-1.4 or to final market destination. All other solid waste residue must be cleared from the TS/MRF daily, as per Condition C.5 (Waste Retention Time) of this Permit.
- b. All processing and storage of solid waste and all other related recyclables processing activities shall be performed within the confines of the TS/MRF as depicted on the approved engineering design drawings and as explained in the documents submitted in support of this Permit referenced in Condition C.1 (Referenced Engineering Plans and Documents).
- c. A movable concrete barrier or equivalent type of barricade and/or time separation shall be utilized to physically separate the tipping, storage and processing areas of permitted solid waste types 10, 23, 25 and 27 from tipping, storage and processing areas of bulky waste type 13 and construction and demolition waste type 13C.
- d. Any source separated recyclable loads tipped on the tipping floor shall be kept separate from solid waste.
- e. Unauthorized or hazardous waste detected and removed from the solid waste shall be handled in accordance with the Condition A.7 (Unauthorized Waste) of this permit.
- f. Materials recovered for transportation to a recycling center or final market destination shall be stored in roll-off containers or storage bins on a concrete low permeability base.
- g. The TS/MRF shall maintain contracts or letters of agreement with approved recycling centers or final market destinations, where required, or shall use spot markets for the disposition of all recovered materials. The Department shall be notified by the Permittee within one week of changes in the status of existing contracts or of

the addition of any new contracts for the disposition of recoverable materials including the utilization of any spot markets. Such notice shall include documentation of the changed status or a copy of the new contract.

- h. The Department reserves the right to amend this Permit to further restrict operations, impose monitoring requirements, prohibit specific waste types or impose additional time limitations on the storage of waste or recovered materials.

7. Maintenance and Repair

Through an effective inspection, planned maintenance, and repair and parts replacement programs, the TS/MRF systems and related appurtenances shall, at all times, be kept in proper operating order. As part of this program, the Permittee shall maintain an inventory of spare parts and replacement equipment, or maintenance contracts shall be established with companies available for leasing backup equipment to ensure continued operation of the TS/MRF.

The results of all inspections shall be recorded in a bound inspection log. These records shall be maintained at the TS/MRF for a minimum of five years from the date of inspection.

These records shall include the date and time of the inspection, the name of the inspector, a notation of observations, and recommendations and the date and nature of any repairs or other remedial action taken. These records shall be made available for inspection by Departmental personnel or their designated representatives.

8. Wastewater and Stormwater Disposal

All washdown waste water resulting from the operation and washdown of the concrete tipping floor and transfer trailer pit area shall be directed to an oil/water separator via the floor drains. The waste oil retrieved from the oil/water separator and contained in a separate 550 gallon underground holding tank (UST Registration Certificate # 0203023) shall be transported and disposed of in accordance with the New Jersey Hazardous Waste Regulations as set forth at N.J.A.C. 7:26G-7.0. The wastewater is collected into separate 6000 gallon underground wastewater holding tank and is hauled to the Seven Mile Beach/Middle Wastewater Treatment Facility for ultimate disposal.

The holding tanks shall be monitored and pumped out for proper disposal on a regular basis. No wastewater shall be permitted to enter stormwater drainage systems. The permittee shall comply with the Treatments Work Approval, Permit No. 90-4613-4L dated April 11,1991.

Stormwater from the paved area shall be directed to a detention

basin which in turn overflows into an existing firepond located at the northeast corner of the site. The firepond is equipped with an overflow structure and water overflows through a reinforced concrete pipe underneath the road to an existing rip-rap swale and then into sedimentation/stormwater detention basin. Stormwater from the grassed area at the facility shall be directed via a grass swale to the existing fire pond stated above.

No run-off from Cape May County Secure Sanitary Landfill shall be allowed into the above system.

The permittee shall comply with all of the requirements as set forth in N.J.A.C. 7:14-12 for discharge to surface water.

9. Emergency Provisions for Equipment Breakdown or Power Failure

In the event of a TS/MRF outage or other significant malfunction, which would result in the TS/MRF's inability to process waste at a rate equal to or exceeding the rate of incoming waste, the Permittee shall immediately report such incidents to the Division of Solid and Hazardous Waste at (609) 292-9880.

At no time shall the capacity of the tipping area be exceeded nor shall vehicles be permitted to queue in areas other than as designated in the documents that are listed in Condition C.1(Referenced Engineering Plans and Documents) of this Permit.

10. Final Disposal

Pursuant to this Permit, the requirements of the Solid Waste Management Act and its implementing regulations at N.J.A.C. 7:26-6.1 et seq., the point of generation of all waste (except I.D. #13C waste) received, handled and/or processed at the facility shall be the physical source and the county solid waste management district from which the waste entering the facility originates. The permittee shall not be considered the generator of any of the solid waste which, after processing, is to be disposed. All solid waste processed at this facility other than ID #13C waste and those materials collected for transportation to a recycling center or final market destination, shall be delivered to permitted solid waste disposal facilities within the appropriate solid waste district of origin as designated in the particular District Solid Waste Management Plan and in accordance with N.J.A.C. 7:26-2B.9 and 2B.10. All waste type ID #13C material shall be transported and disposed in accordance with the N.J.A.C. 7:26-2.13. The facility shall maintain records as per Condition A-24 (Operations Record) of this Permit in order to document compliance with this requirement.

Failure to comply with any or all limitations heretofore mentioned will result in the Department seeking relief under the Solid Waste Management Act N.J.S.A. 13:1E-1 et seq. Specifically, each day of

failure to so comply shall constitute a separate violation on the basis of which a penalty shall be assessed and may result in loss of operating authority, pursuant to N.J.S.A. 13:1E-12.

The issuance of this Permit and the conditions of operation identified herein shall not be interpreted as relieving the Permittee of his responsibility to secure and maintain all other applicable federal, state, and local permits or similar forms of authorization relating to the construction and operation of this facility.

FILE: PERFINAL. CAP